Abstract:

The present invention is to provide a gene having asymmetric hydrolase activity which is useful for synthesis of an optically active carboxylic acid, its antipode ester, and lactone, and a hydroxycarboxylic ester asymmetric hydrolase enzyme (EnHCH) derived from *Enterobacter sp.* DS-S-75 strain (FERM BP-5494) which is bacteria belonging to the genus *Enterobacter*, a EnHCH gene shown by base sequence of SEQ.ID.NO: 1, a gene encoding a protein having an amino acid sequence of SEQ.ID.NO: 2, and *E. coli* DH5α (pKK-EnHCH) deposited to International Patent Organism Depositary, National Institute of Advanced Industrial Science and Technology as a deposition No. FERM BP-08466.